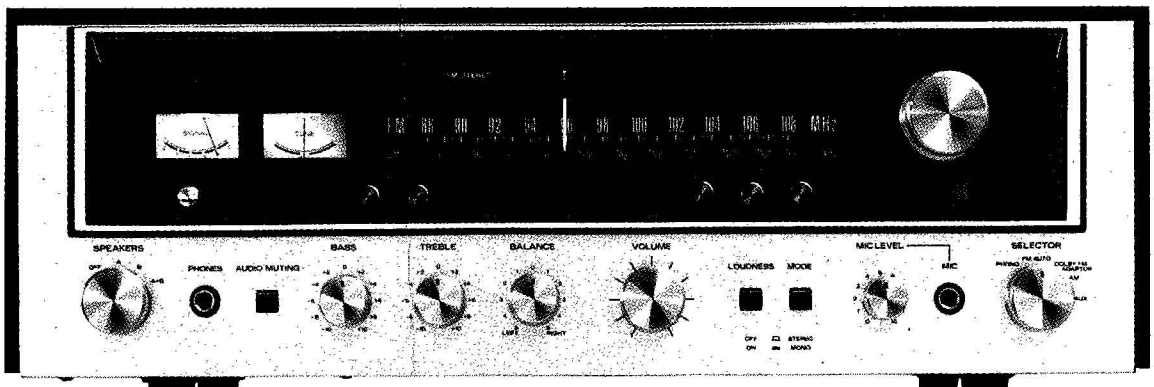
SERVICE MANUAL

AM/FM STEREO RECEIVER

SANSUI 6060/5050



Sansui

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This service manual is designed for service engineers to repair, adjust, maintain and order the replacement parts of the 5050, 6060 correctly. When ordering the parts, use the stock number and parts name specifically referring to the Parts Location and Parts Lists.
For general usage and maintenance of the unit, please refer to the Operating Instructions attached with the unit.

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1. SPECIFICATIONS

AUDIO SECTION

POWER OUTPUT

MODEL 5050

Min. RMS, both channels driven, from 20 to 20,000Hz, with no more than 0.5% total harmonic distortion

30 watts per channel into 8 ohms
33 watts per channel into 4 ohms

Min. RMS, both channels drivan, at 1,000Hz, with no more than 0.5% total harmonic distortion
33 watts per channel into 8 ohms
35 watts per channel into 4 ohms

MODEL 6060

Min. RMS, both channels driven, from 20 to 20,000Hz, with no more than 0.4% total harmonic distortion

40 watts per channel into 8 ohms
44 watts per channel into 8 ohms

Min. RMS, both channels driven, at 1,000Hz, with no more than 0.4% total harmonic distortion
44 watts per channel into 8 ohms
46 watts per channel into 4 ohms

LOAD IMPEDANCE ..... 4,8 ohms (SYSTEM A or B)
8 ohms (SYSTEM A+B)

POWER BANDWIDTH ..... 20 to 20,000Hz at or below rated min. RMS power output and total harmonic distortion

TOTAL HARMONIC DISTORTION

MODEL 5050 ..... less than 0.5% at or below rated min. RMS power output

MODEL 6060 ..... less than 0.4% at or below rated min. RMS power output

INTERMODULATION DISTORTION
(70Hz:7kHz=4:1 SMPTE method)

MODEL 5050 ..... less than 0.5%

MODEL 6060 ..... less than 0.4%

FREQUENCY RESPONSE (at 1 watt)
..... 20 to 30,000Hz ±1.5dB

RIAA CURVE DEVIATION (PHONO)
..... +1.0dB, −1.0dB
(30Hz to 15kHz)

DAMPING FACTOR ..... approximately 45 at 8 ohm load

INPUT SENSITIVITY AND IMPEDANCE
(1 kHz, for rated power output)

PHONO ..... 2.5mV/50 kiloohms
(Max. input capability. 160mV at 1kHz, less than 0.5% total harmonic distortion.)

MIC ..... 2.5mV/50 kiloohms

TAPE PLAY, AUX ..... 150mV/50 kiloohms

OUTPUT LEVEL (1;000Hz)

TAPE REC (pin jacks) 150mV

TAPE REC (DIN socket) 30mV

CHANNEL SEPARATION (at rated output 1,000Hz)

PHONO ..... better than 45dB

TAPE PLAY, AUX ..... better than 45dB

HUM AND NOISE

PHONO ..... better than 70dB

TAPE PLAY, AUX ..... better than 80dB

CONTROLS

MODEL 5050

BASS ..... ±10dB (50Hz)
TREBLE ..... +10dB (10kHz)
LOUDNESS ..... +8dB (50Hz)
+6dB (10dB (10kHz)
HIGH FILTER ..... −10dB (10kHz)

MODEL 6060

BASS ..... ±10dB (50Hz)
TREBLE ..... ±10dB (10kHz)
LOUDNESS ..... +8dB (50Hz)
+6dB (10kHz)
LOW FILTER ..... −10dB (50Hz)
HIGH FILTER ..... −10dB (10kHz)
AUDIO MUTING ..... −20dB

FM SECTION

TUNING RANGE ..... 88 to 108MHz

SENSITIVITY

MODEL 5050

(IHF) 11.2dBf (2.0μV)
(DIN) 1.1μV

MODEL 6060

(IHF) 10.8dBf (1.9μV)
(DIN) 1.1μV

50dB QUIETING SENSITIVITY

STEREO (IHF) 38dBf (45μV)
MONO (IHF) 16dBf (3.5μV)

TOTAL HARMONIC DISTORTION

STEREO ..... less than 0.5%
MONO ..... less than 0.4%

SIGNAL TO NOISE RATIO (mono)
..... better than 65dB

SELECTIVITY ..... better than 60dB

CAPTURE RATIO ..... less than 2.2dB

IMAGE RESPONSE RATIO (IHF) .. better than 50dB (98MHz)

IF RESPONSE RATIO (IHF) ..... better than 75dB (98MHz)

SPURIOUS RESPONSE RATIO (IHF)
..... better than 70dB (98MHz)

SPURIOUS RADIATION ..... less than 34dB

STEREO SEPARATION ..... better than 40dB (1 kHz)

FREQUENCY RESPONSE ..... 30 to 15,000Hz $^{+1.0}_{-3.0}$dB

ANTENNA INPUT IMPEDANCE .. 75Ω unbalanced
300Ω balanced

AM SECTION

TUNING RANGE ..... 535 to 1,605kHz

SENSITIVITY (Bar antenna) 50dB/m (1,000kHz)

SELECTIVITY ..... better than 35dB (1,000kHz)

IMAGE RESPONSE RATIO (IHF) .. better than 35dB (1,000kHz)

IF RESPONSE RATIO (IHF) ..... better than 30dB (1,000kHz)

OTHERS

MODEL 5050

POWER REQUIREMENTS

POWER VOLTAGE 100, 120, 220, 240V 50/60Hz
120V (Usable 110–130V)
60Hz (for U.S.A. & Canada only)

POWER CONSUMPTION .... 125 watts (rated)
210 watts, 250VA (max.)

MODEL 6060

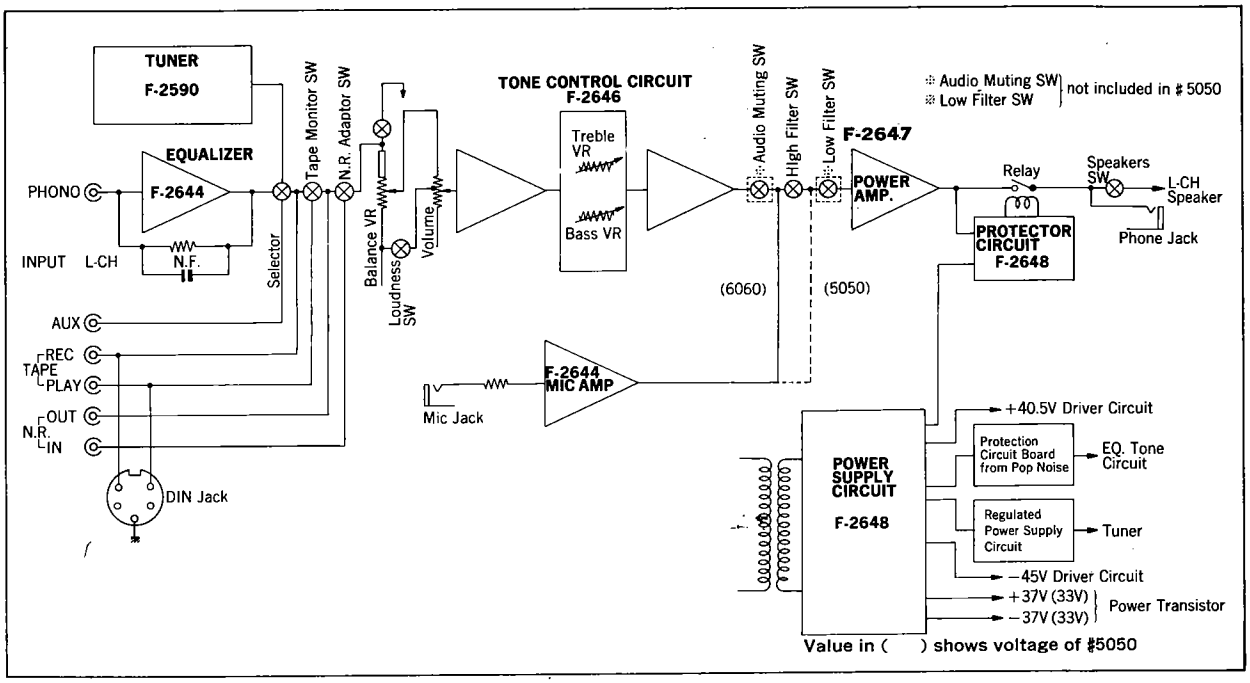
POWER REQUIREMENTS

POWER VOLTAGE 100, 120, 220, 240V 50/60Hz
120V (Usable 110–130V)
60Hz (for U.S.A. & Canada only)

POWER CONSUMPTION .... 180 watts (rated)
300 watts, 350VA (max.)

*Design and specifications subject to change without notice for improvements.

2. BLOCK DIAGRAM



3. ADJUSTMENTS

3-1. Adjustment of Bias Current (See Fig. 3-1 & 3-2)

STEP	SUBJECT	EQUIPMENT	MEASURE OUTPUT	ADJUST	ADJUST FOR
1	Bias Current L-CH	DC Volt Meter	R05, R07 F-2648	VR01 F-2647	15mV ±1mV
2	Bias Current R-CH	DC Volt Meter	R06, R08 F-2648	VR02 F-2647	15mV ±1mV

Fig. 3-1

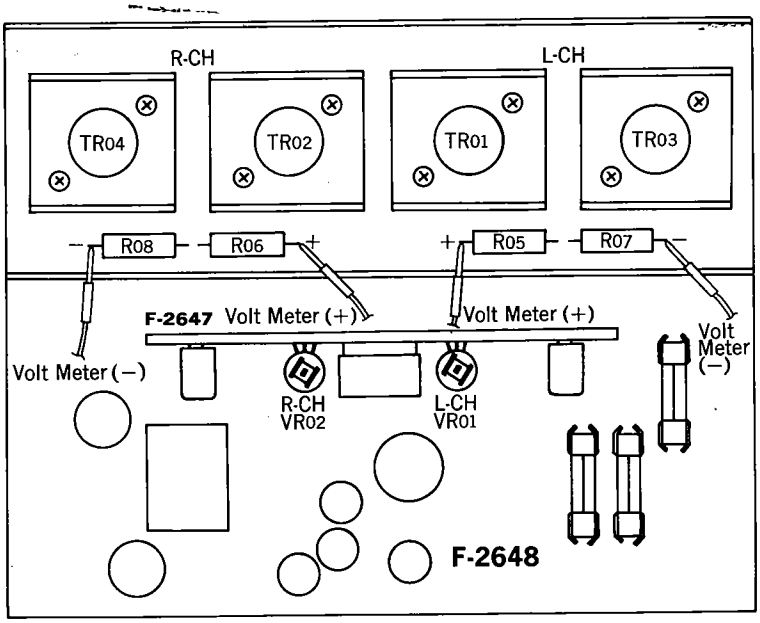
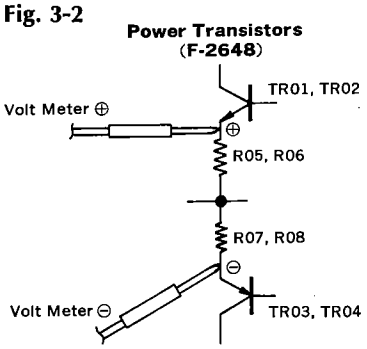
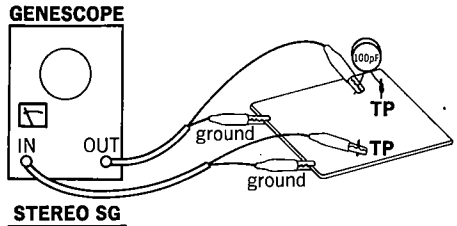


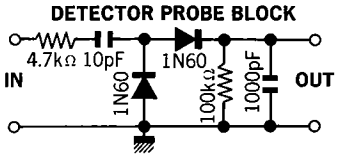
Fig. 3-2

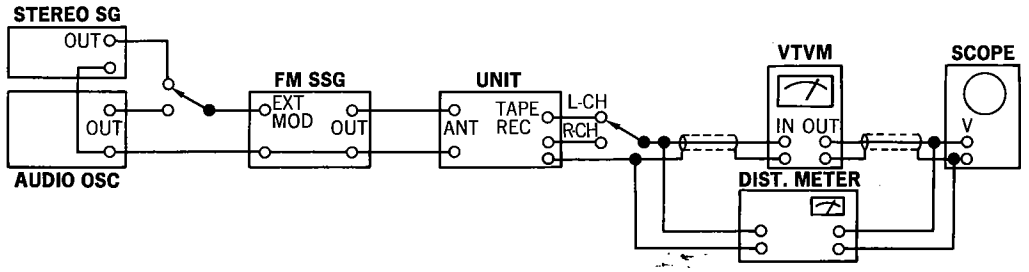


3-2. FM & MPX Adjustment & Alignment (See Fig. 3-3 on page 5)

Note: 1. Selector.....FM AUTO
2. FM Muting Switch .....OFF
3. Connection.....Connect the output of genescope to TP through 100pF ceramic capacitor.







1) FM IF Adjustment & Tracking

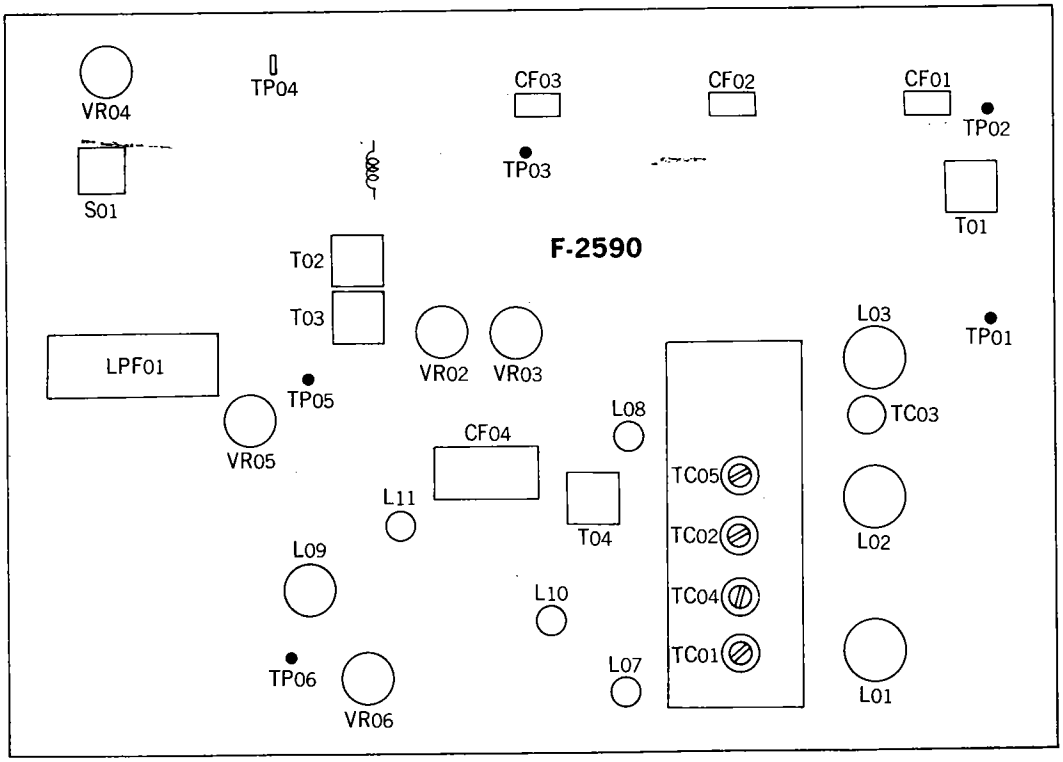
STEP	SUBJECT	FEED SIGNAL FROM	FEED SIGNAL TO	MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
1.	IF Coil	Output 60dB Genescope	TP01 F-2590	TP03 F-2590 Use Detector Probe	T01 F-2590	Max. IF waveform	
2.	Discriminator Coil	Output 50dB Genescope	Same as above	TP04 F-2590	T02 F-2590	Center indication on tune meter	
						Max. linearity of S curve	
					T03 F-2590	Steep linearity of S curve	
						Set output wave to dip point (It's minimum distortion)	
3.	90MHz Dial Calibration	90MHz ANT Input 60dB 400Hz (100% MOD) FM SSG	ANT terminal 300Ω	REC OUT L or R-CH VTVM & Scope	L03 F-2590	Max. Output	
	106MHz Dial Calibration	106MHz ANT Input 60dB 400Hz (100% MOD) FM SSG	Same as above	Same as above	TC03 F-2590	Same as above	
4.	90MHz RF Adj.	90MHz ANT Input 60dB 400Hz (100% MOD) FM SSG	Same as above	Same as above	L01, L02 F-2590	Same as above	
	106MHz RF Adj.	106MHz ANT Input 60dB 400Hz (100% MOD) FM SSG	Same as above	Same as above	TC01 TC02 F-2590	Same as above	
5.	Signal Meter Volume	98MHz ANT Input 60dB 400Hz (100% MOD) FM SSG	Same as above	Signal Meter	VR02 F-2590	4.3 on Meter	

2) MPX Adjustment

STEP	SUBJECT	FEED SIGNAL FROM	FEED SIGNAL TO	MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
1.	PLL VCO Adj.	98MHz ANT Input 60dB FM SSG Pilot 19kHz (10% MOD) L-CH 1kHz (45% MOD) R-CH (0% MOD) STEREO SG	ANT terminal 300Ω	Stereo indicator	VR05 F-2590	Light indicator	Adjust the VR within center of lighting level.
	PLL VCO Adj. In case of using Freq. counter.		Make short between TP04 & chassis	TP05 F-2590 Use Freq. counter	VR05 F-2590	76kHz ±200Hz	For this adjustment, run the unit over 30 seconds.
2.	Separation	98MHz ANT Input 60dB FM SSG Pilot 19kHz (10% MOD) L-CH (0% MOD) R-CH 1kHz (45% MOD) STEREO SG	ANT terminal 300Ω	REC OUT L-CH VTVM& Scope	VR04 F-2590	Min. Output −35dB	Confirm separation L-CH→R-CH −35dB
3.	Muting level & indicator level	98MHz ANT Input 23dB FM SSG Pilot 19kHz (10% MOD) L-CH 1kHz (45% MOD) R-CH (0% MOD) STEREO SG	Same as above	Stereo indicator	VR03 F-2590	Muting level 23dB Indicator lighting level 23dB	

◇Adjusting or Connecting Points on AM, FM & FM MPX circuit board, F-2590

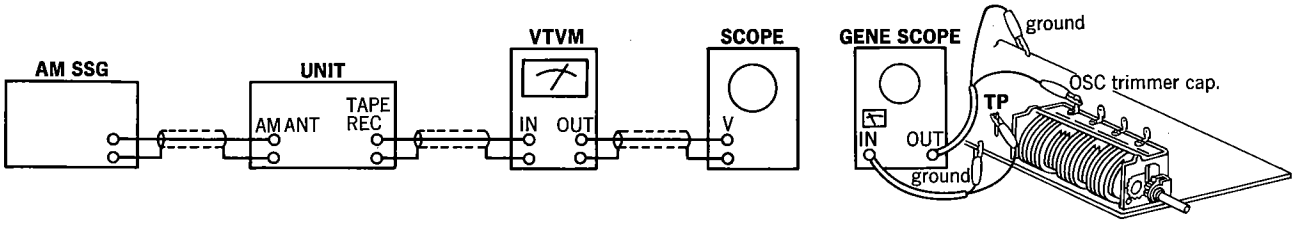
Fig. 3-3



3-3. AM IF Adjustment & Tracking (See Fig. 3-3 page 5)

Note: Selector.....AM

2. Confirm start point of dial pointer before alignment.



STEP	SUBJECT	FEED SIGNAL FROM	FEED SIGNAL TO	MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
1.	IF Coil	Genescope Output 65dB	TC04 F-2590	TP06 F-2590	CF04 F-2590	Max. IF waveform	
2.	600kHz Dial Calibration	600kHz ANT Input 60dB 400Hz (MOD 30%) AM SSG	AM ANT terminal	REC OUT L or R-CH VTVM & Scope	T-04 F-2590	Max. Output	
	1400kHz Dial Calibration	1400kHz ANT Input 60dB 400Hz (MOD 30%) AM SSG	Same as above	Same as above	TC05 F-2590	Same as above	
3.	600kHz RF Adj.	600kHz ANT Input 60dB 400Hz (MOD 30%) AM SSG	Same as above	Same as above	L702 Bar Antenna	Same as above	
	1400kHz RF Adj.	1400kHz ANT Input 60dB 400Hz (MOD 30%) AM SSG	Same as above	Same as above	TC04 F-2590	Same as above	
4.	Signal Meter volume	1000kHz ANT Input 54dB 400Hz (MOD 30%) AM SSG	Same as adove	Signal Meter	VR06 F-2590	4 on meter	

Abbreviations

Epuipment

AM FM Generator Oscilloscope.....Genescope
AM Standard Signal Generator .....AM SSG
FM Standard Signal Generator .....FM SSG
FM Stereo Generator.....Stereo SG
Oscilloscope .....Scope
Audio Oscillator .....Audio Osc.
Distortion Meter .....Dist. Meter

Others

Clockwise .....CW.
Counterclockwise .....CCW.
Antenna .....ANT.
Modulation .....MOD.

4. THREADING OF DIAL CORD

*If a dial cord is cut off or slips, replace it by following procedures.
As this unit uses 0.6mmϕ cord, please replace it with the same type certainly.
*The length of dial cord is approximately 160cm (65.3 inch).

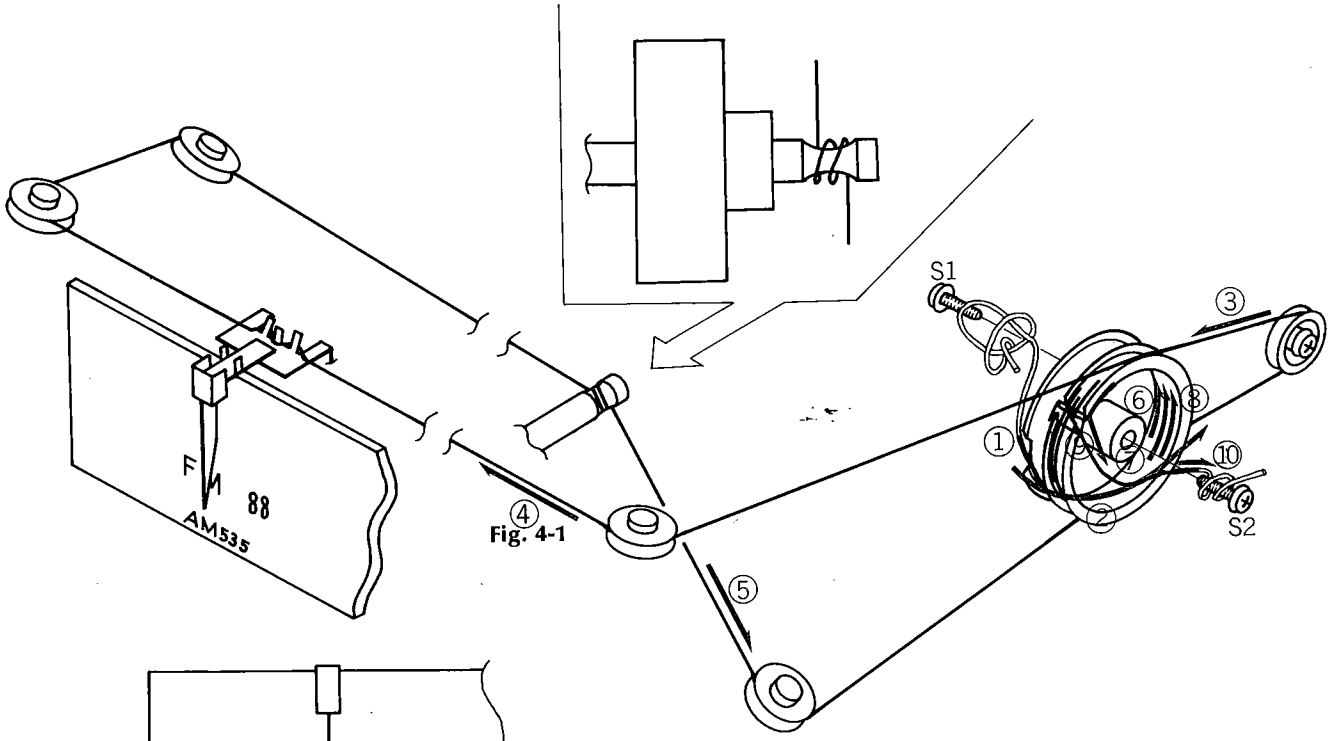


Fig. 4-1

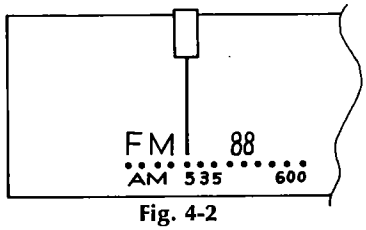


Fig. 4-2

4-1. Threading of Dial Cord

Thread the dial cord in numerical order from ① to ⑩ as Fig. 4-1.

1) Close the variable capacitor completely (Max. capacitance).
2) Tie dial cord to the screw S1 of the dial pulley.
3) Thread cord in the direction of arrow from ① to ⑩.
4) After ⑩, tie the cord to the screw S2 of the dial pulley.

4-2. Attachment of Dial Pointer

1) Close the variable capacitor completely.
2) Set the dial pointer as Fig. 4-2.

*Confirm that the dial pointer runs smoothly on the dial scale by turning the tuning shaft.

Parts List

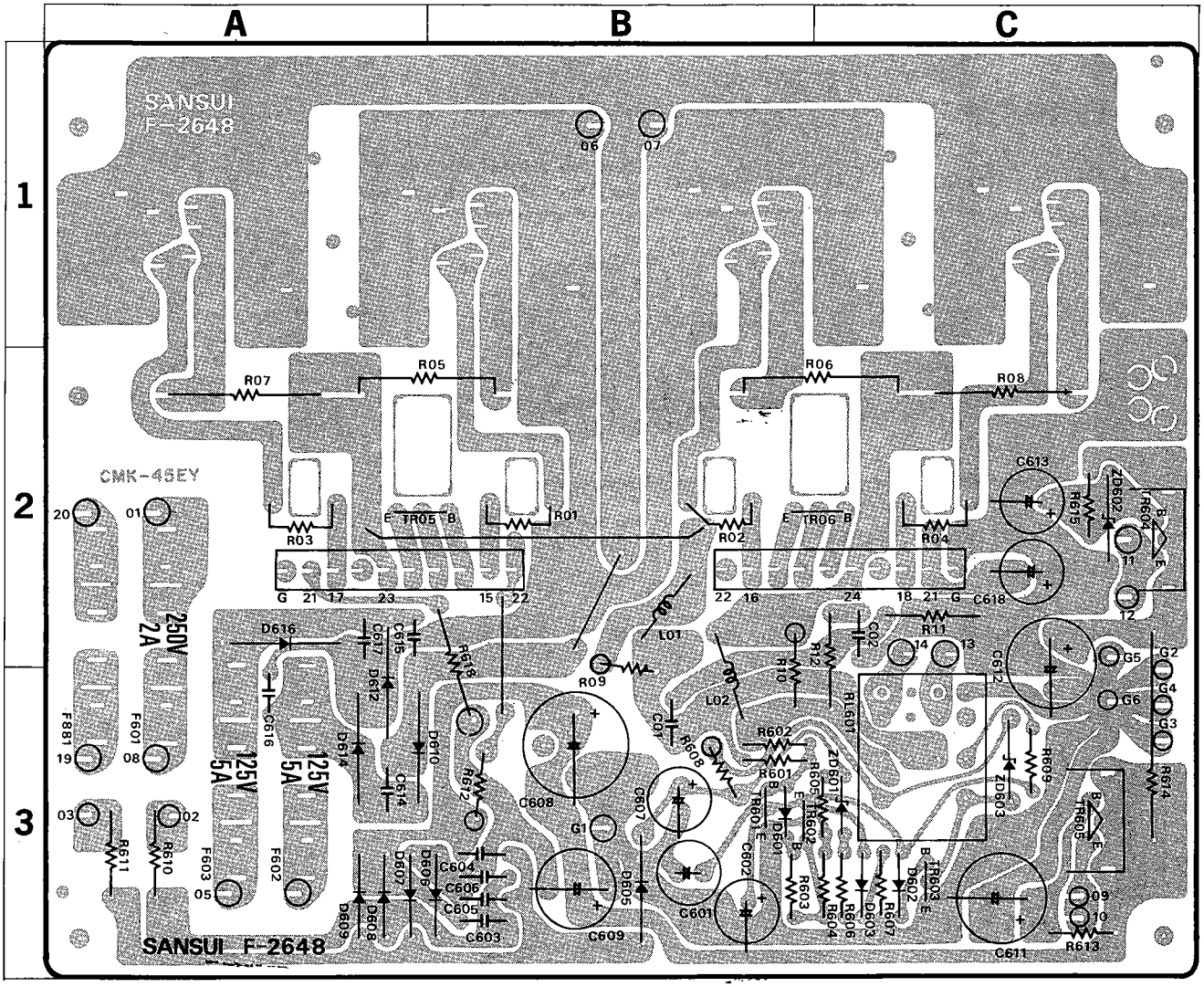
Stock No.	Description
6036050	Dial Cord (0.6mmϕ)
6146663	D35 Type Pulley

5. PARTS LOCATION AND PARTS LIST

*Values and Stock No. of most Resistors and Capacitors are shown in Common Parts Lists attached.

5-1. F-2648 Power Supply Circuit Board (Stock No. 7501671 MODEL 5050) (Stock No. 7501721 MODEL 6060)

Conductor Side



Parts List

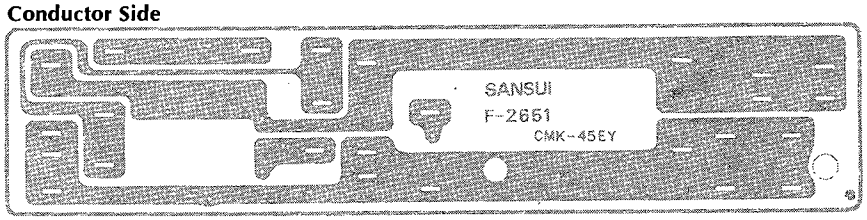
Parts No.	Stock No.	Description	Position
TR05, 06	0305731, 2	2SC711 E,F	2A,B,2B,C
TR601	0305951, 2	2SC945 Q,P	3 B
TR603	0306131, 2	2SC1364 6,7 Transistor	3 C
TR604	0308392, 3	2SD313 E,F	2 C
TR605	0308392, 3	2SD313 E,F	3 C
D601	0340090	DS-430	3 B
D602	0340090	DS-430 Varistor	3 C
D603	0340090	DS-430	3 C
D605	0310350		3 B
D606	0310350		3 B
D607	0310350	10D-2 Diode	3 A
D608	0310350		3 A
D609	0310350		3 A
D610	0311530		3 A
D612	0311530	30D-2 Diode	2, 3 A
D614	0311530		3 A
D616	0311530		2 A
ZD601	0316070	EQA01-24R Zener Diode	3 C
ZD602	0315970	EQA01-13R Zener Diode	2 C
ZD603	0315080	EQB01-25 Zener Diode	3 C
C603	0655472	4700pF 500V C.C.	3 B
C604	0655472	4700pF 500V C.C.	3 B
C605	0655472	4700pF 500V C.C.	3 B
C606	0655472	4700pF 500V C.C.	3 B

Parts No.	Stock No.	Description	Position
C608	0549201	1000μF 63V E.C.	3 B
C614	0655472	4700pF 500V C.C.	3 A
C615	0655472	4700pF 500V C.C.	2 A
C616	0655472	4700pF 500V C.C.	3 A
C617	0655472	4700pF 500V C.C.	2 A
R01, 02	0193689	6.8Ω ¼W Fuse R.	2 B
R03, 04	0193689	6.8Ω ¼W Fuse R.	2 A, 2 C
R05, 06	0152338	0.33Ω 2W Ce.R.	2, AB, 2B, C
R07, 08	0152338	0.33Ω 2W Ce.R.	2 A, 2 C
R09, 10	0104479	4.7Ω 1W C.R.	2, C B
R11, 12	0103479	4.7Ω ½W C.R.	2C, 2, 3C
R608	0202221	220Ω 2W M.R.	3 B
R610	0192229	2.2Ω ½ Fuse R.	3 A
R611	0192229	2.2Ω ½ Fuse R.	3 A
R614	0183221	220Ω 3W Ce.R.	3 C
L01, 02	4290210	Filter Coil	2B, 2, 3B
RL601	1150101	Relay Switch	3 C
F601	0432240	2A 250V AC Fuse	3 A
	2410590	4P Pin Ass'y Type A	
	2420540	10P Conector Ass'y Type A	
	2410730	6P Pin Ass'y Type A	
	2410850	4P Pin Ass'y Type B	

Parts No.	Stock No.	Description	Position
MODEL 5050 Only			
TR01, 02	0306511, 2	2SC1445 O,Y	
TR03, 04	0300881, 2	2SA765 O,Y	
TR602	0300680, 1	2SA733 (2) P,Q	3 B
R612	0202181	180Ω 2W M.R.	3 B
R618	0202151	150Ω 2W M.R.	2, 3 B
F602	0432280	4A 125V AC Fuse	3 A
F603	0432280	4A 125V AC Fuse	3 A
MODEL 6060 Only			
TR01, 02	0308541, 2	2SD188A R,Q	
TR03, 04	0303381, 2	2SB545A R,Q	
TR602	0300510, 1	2SA733 P,Q	3 B
R612	0202121	120Ω 2W M.R.	3 B
R618	0202101	100Ω 2W M.R.	2, 3 B
F602	0432290	5A 125V AC Fuse	3 A
F603	0432290	5A 125A AC Fuse	3 A

5-2. F-2651 Illumination Circuit Board (Stock No. 7594161 MODEL 5050) (Stock No. 7594111 MODEL 6060)

Conductor Side

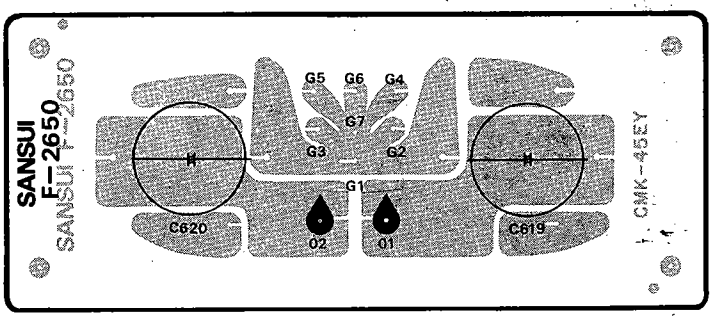


Parts List

Parts No.	Stock No.	Description
D601	0310340	10D-1 Diode
C601	0501331	330μF 10V E.C.
R601	0191180	18Ω ¼W Fuse R.

5-3. F-2650 Capacitor Circuit Board (Stock No. 7501681 MODEL 5050) (Stock No. 7501711 MODEL 6060)

Conductor Side

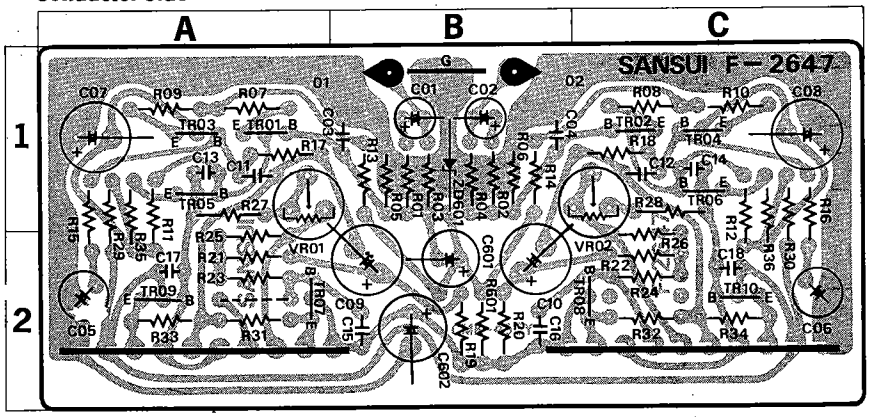


Parts List

Parts No.	Stock No.	Description
MODEL 5050 Only		
C619	0549112	4700μF } 50V E.C.
C620	0549112	4700μF }
MODEL 6060 Only		
C619	0549111	6800pF } 50V E.C.
C620	0549111	6800pF }

5-4. F-2647 Driver Circuit Board (Stock No. 7571421 MODEL 5050) (Stock No. 7571401 MODEL 6060)

Conductor Side

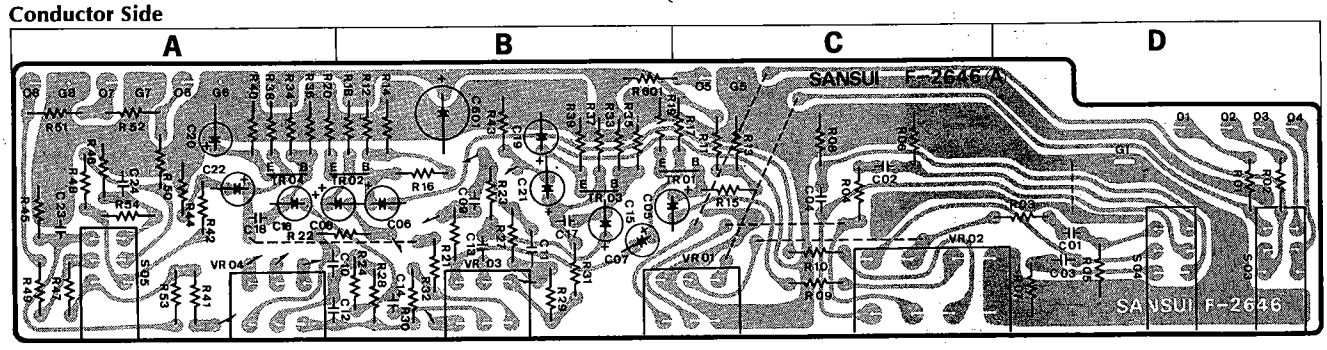


Parts List

Parts No.	Stock No.	Description	Position
TR01, 02	0300470, 1	2SA726 (W) F,G } Transistor	1A.1C
TR03, 04	0300470, 1	2SA726 (W) F,G }	1A.1C
TR05, 06	0306360, 1	2SC1951-1, -2 }	1A.1C
TR07, 08	0308521, 2	2SD438 E,F }	2A.2C
TR09, 10	0303361, 2	2SB560 E,F }	2A.2C
ZD601	0315970	EQA01-13R Zener Diode	1B
R31, 32	0193221	220Ω } ¼W Fuse R.	2A.2C
R33, 34	0193221	220Ω }	2A.2C
VR01, 02	1035310	1kΩ (B)	1A.1C

5-5. F-2646 Tone Control Circuit Board (Stock No. 7561471 MODEL 5050) (Stock No. 7561491 MODEL 6060)

Conductor Side

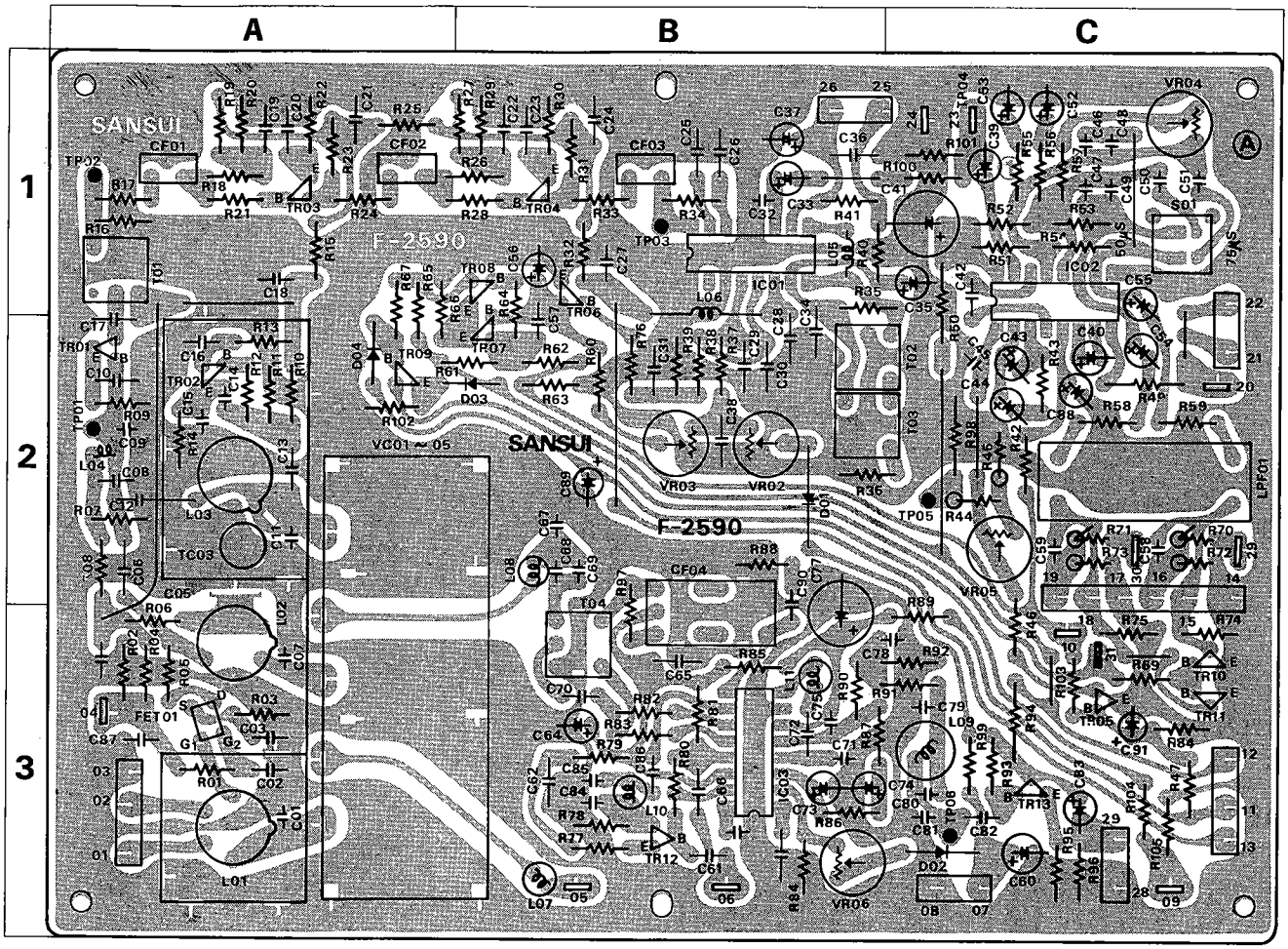


Parts List

Parts No.	Stock No.	Description	Position
TR01, 02	0306070, 1	2SC1313 F,G } Transistor	C, B
TR03, 04	0306070, 1	2SC1313 F,G }	B, A
C01, 02	0620331	330pF 50V P.C.	D, C
R601	0193221	220Ω ¼ Fuse R.	B
VR01	1015190, 1	100kΩ M.N	C, B
VR02	1010920, 1	250kΩ × 2	D, C
VR03	1015180, 1	100kΩ B × 2	B
VR04	1015180, 1	100kΩ B × 2	A
S03	1131110 }	Push Switch	D
S05	1131290 }		A
MODEL 5050 Only			
C23, 24	0600127	0.012μF 50V M.C.	A
R53, 54	0240824	820kΩ ¼W C.R.	A
MODEL 6060 Only			
R45, 46	0240392	3.9kΩ } ¼W C.R.	A
R47, 48	0240393	39kΩ }	A
R49, 50	0240222	2.2kΩ }	A
S06	1131300	Push Switch	

5-6. F-2590 Tuner Circuit Board (Stock No. 7521321 MODEL 5050) (Stock No. 7521291 MODEL 6060)

Conductor Side



Parts List

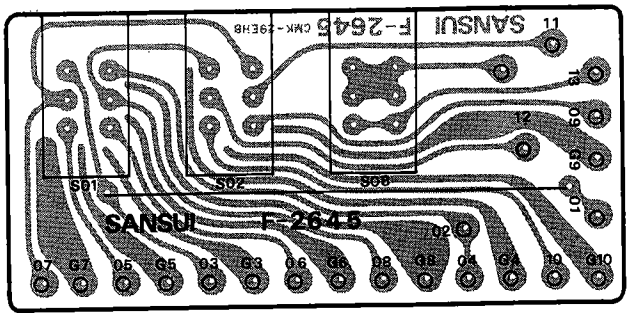
Parts No.	Stock No.	Description		Position
TR01	0305801	2SC1047 (B)	Transistor	2 A
TR02	0305801	2SC1047 (B)		2 A
TR03	0306113	2SC738 (D)		1 A
TR04	0306112	2SC738 (C)		1 B
TR05	0305731, 2	2SC711 (E, F)		3 C
TR06	0305731, 2	2SC711 (E, F)		1 B
TR07	0305731, 2	2SC711 (E, F)		2 B
TR08	0305731, 2	2SC711 (E, F)		1 B
TR09	0300470	2SA726Ⓦ (F)		2 A
TR10, 11	0305641 / 0306390	2SC735 (Y) / 2SC1636-1		3 C
TR12	0300283	2SA628 (F)		3 B
TR13	0305731, 2	2SC711 (E, F)		
TR15	0300510, 1	2SA733 (P, Q)		
IC01	0360350	IC HA1137 (W)	IC	1 B
IC02	0360320	IC HA1196		1 C
IC03	0360150	IC HA-1151		3 B
FT01	0370131, 2	3SK41 (1) (L, K) FET		
D01	0340120	VD1212 Varistor		2 B
D02	0310330, 1	1N60 Diode		3 C
D03	0340120	VD1212 Varistor		2 B
D04	0311160	1S2473D		

Parts No.	Stock No.	Description	Position
C01	0669350	15pF 50V C.C.	3 A
C05	0659015	2200pF 50V C.C.	2 A
C07	0669350	15pF 50V C.C.	3 A
C11	0669355	20pF 50V C.C.	2 A
C12	0679012	1.5pF 500V G.C.	2 A
C45	0629005	360pF 50V P.C.	2 C
C48, 49	0620101	100pF 50V P.C.	1 C
C50, 51	0620561	560pF 50V P.C.	
C67	0669400	15pF 50V C.C.	2 B
C69	0620361	360pF 50V P.C.	
L01	4200720	Antenna Coil	3 A
L02	4210340	RF Coil	3 A
L03	4220400	OSC Coil	2 A
L04	4290110	Choke Coil	2 A
L07	4900100	Inductor	3 B
L08	4900100		2 B
L09	4900220		3 C
L10	4900110		3 B
L11	4900110		3 B
T01	4235930	IF Coil	1 A
T02	4235970	FM Coil	2 B, C
T03	4235980	FM Coil	2 B, C
T04	4220650	OSC Coil	3 B

Parts No.	Stock No.	Description	Position
T05	4290280	Inductor	
T06	4290011	Choke Coil	
CF01	0910150	10.7MHz Ceramic Filter	1 A
CF02	0910150	10.7MHz Ceramic Filter	1 A
CF03	0910150	10.7MHz Ceramic Filter	1 B
CF04	0910280	455kHz Ceramic Filter	2, 3 B
LF01	0910220	19kHz Low Pass Filter	
VR02	1035170	47kΩ (B)	2 B
VR03	1035190	100kΩ (B)	2 B
VR04	1035210	220kΩ (B)	1 C
VR05	1034250	4.7kΩ (B)	2 C
VR06	1035110	4.7kΩ (B)	
S01	1110270	Slide Switch	
VC01	1220250	Variable Capacitor	2 A
TC03	1230090	Trimmer Capacitor	
	2410600	6P Pin Ass'y Type D	
	2410910	2P Pin Ass'y Type E	
	2410920	3P Pin Ass'y Type E	

5-7. F-2645 Muting Circuit Board (Stock No. 7594151 MODEL 5050) (Stock No. 7594101 MODEL 6060)

Conductor Side

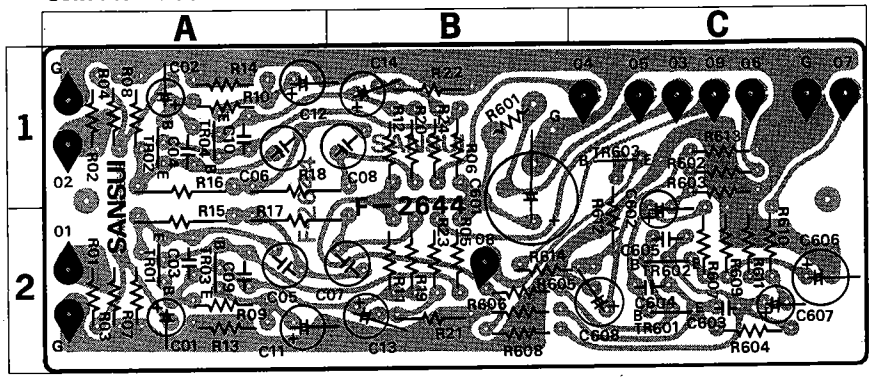


Parts List

Parts No.	Stock No.	Description
S01	1131320	Push Switch

5-8. F-2644 Equalizer Circuit Board (Stock No. 7550941 MODEL 5050) (Stock No. 7550961 MODEL 6060)

Conductor Side

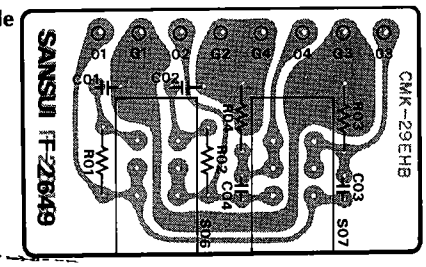


Parts List

Parts No.	Stock No.	Description		Position
TR01, 02	0306070, 1	3SC1313 F,G	Transistor	2A.1A
TR03, 04	0306070, 1	2SC1313 F,G	Transistor	2A.1A
TR601	0306070, 1	2SC1313 F,G	Transistor	2C
TR602	0306070, 1	2SC1313 F,G	Transistor	2C
C01, 02	0573339	3.3μF 35V T.C.		2A.1A
C05, 06	0625103	10000pF 50V P.C.		2A.1A
C07, 08	0625272	2700pF 50V P.C.		2B.1B
C602	0573339	3.3μF 35V T.C.		2C
R15, 16	0231394	390kΩ ½W M.R.		2A.1A
R17, 18	0231273	27kΩ ½W M.R.		2A.1A
R601	0200221	220Ω ½W M.R.		1B
	2410920	3P pin Ass'y Type E		
	2410930	4P Pin Ass'y Type E		

5-9. F-2649 Filter Circuit Board (Stock No. 7561501 MODEL 6060 Only)

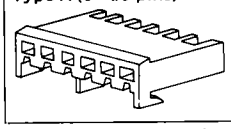
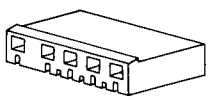
Conductor Side



5-10. Figures

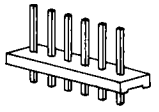
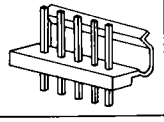
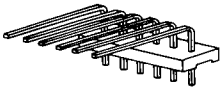
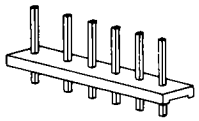
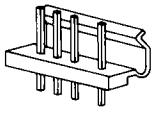
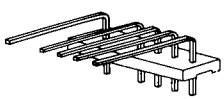
Connector & Pin Ass'y

Connector

Type A (3~10 pins)	Type B (2~6 pins)	Stock No.
		2 Pins 2420450 3 Pins 2420460 3 Pins(RED) 2420650 4 Pins 2420470 5 Pins 2420480 6 Pins 2420490

NOTE: Since stock number of famale connectors (type B) with wires are not shown in each parts list of Complete circuit board, please refer to the above parts list when ordering the connector.

Pin Ass'y

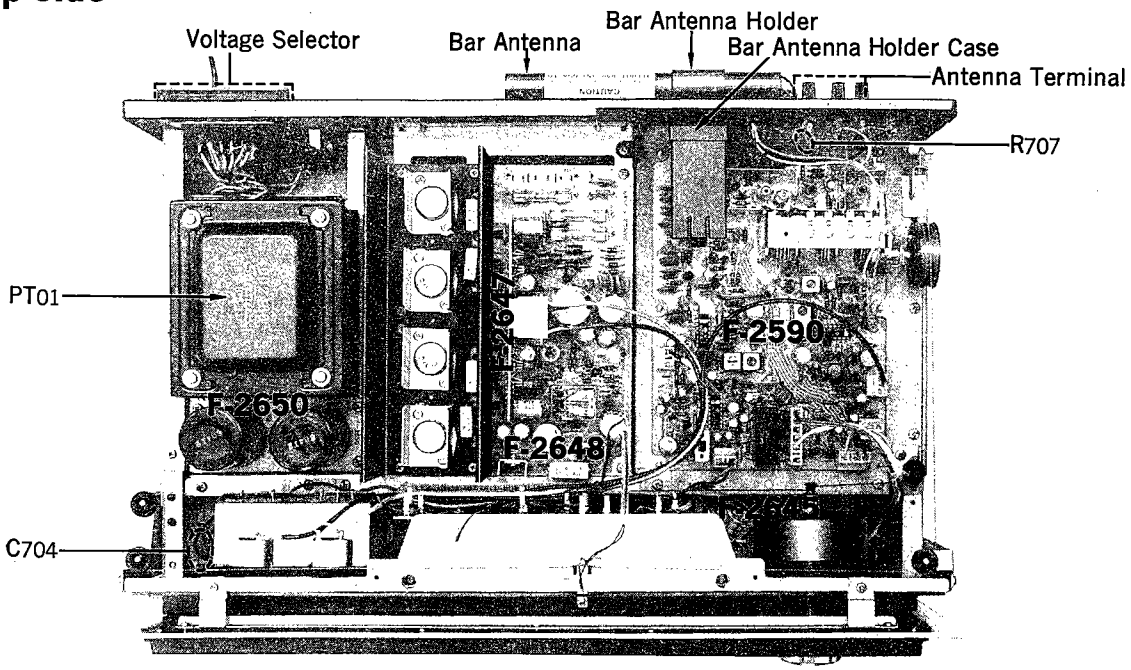
Type A (3~10 pins)	Type B (3~10 pins)	Type C (3~10 pins)
		
Type D (2~6 pins)	**Type E (2~6 pins)**	**Type F (2~6 pins)**
		

Abbreviations

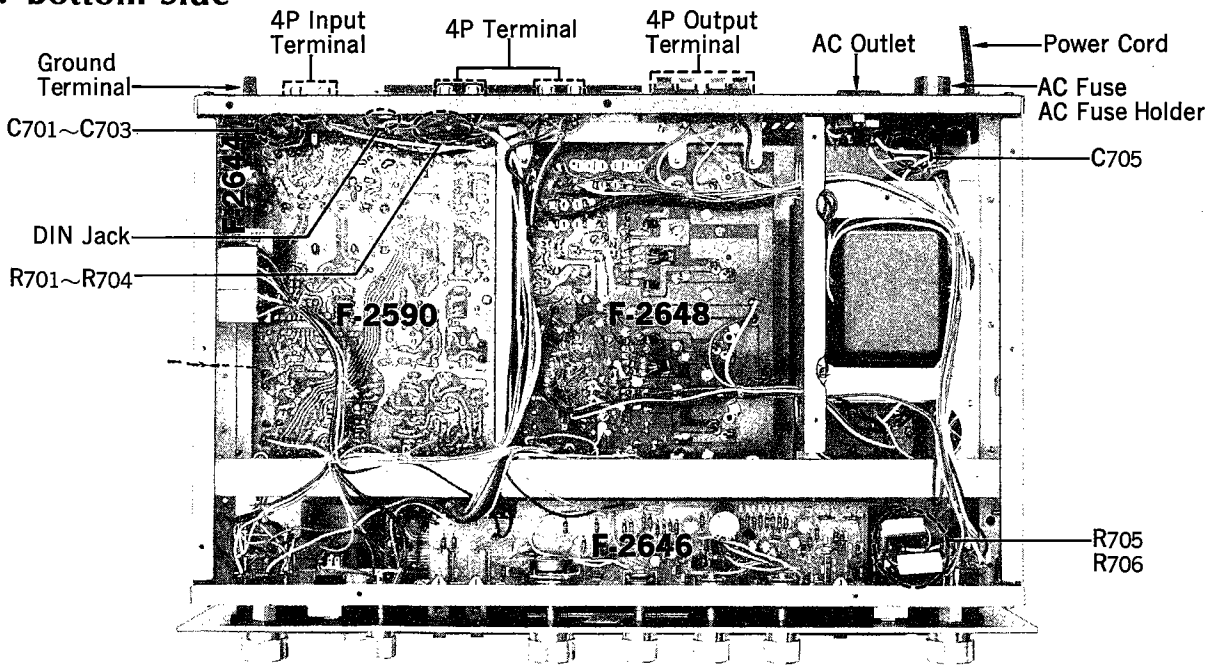
C.R.	:	Carbon Resistor	**BP.E.C.**	:	Bi-Polar Electrolytic Capacitor
S.R.	:	Solid Resistor			
Ce.R.	:	Cement Resistor	**C.C.**	:	Ceramic Capacitor
M.R.	:	Metallized Film Resistor	**MI.C.**	:	Mica Capacitor
			O.C.	:	Oil Capacitor
M.C.	:	Mylar Capacitor	**P.C.**	:	Polystyrene Capacitor
E.C.	:	Electrolytic Capacitor	**E.C.**	:	Tantalum Capacitor

6. OTHER PARTS

6-1. Top Side



6-2. Bottom Side



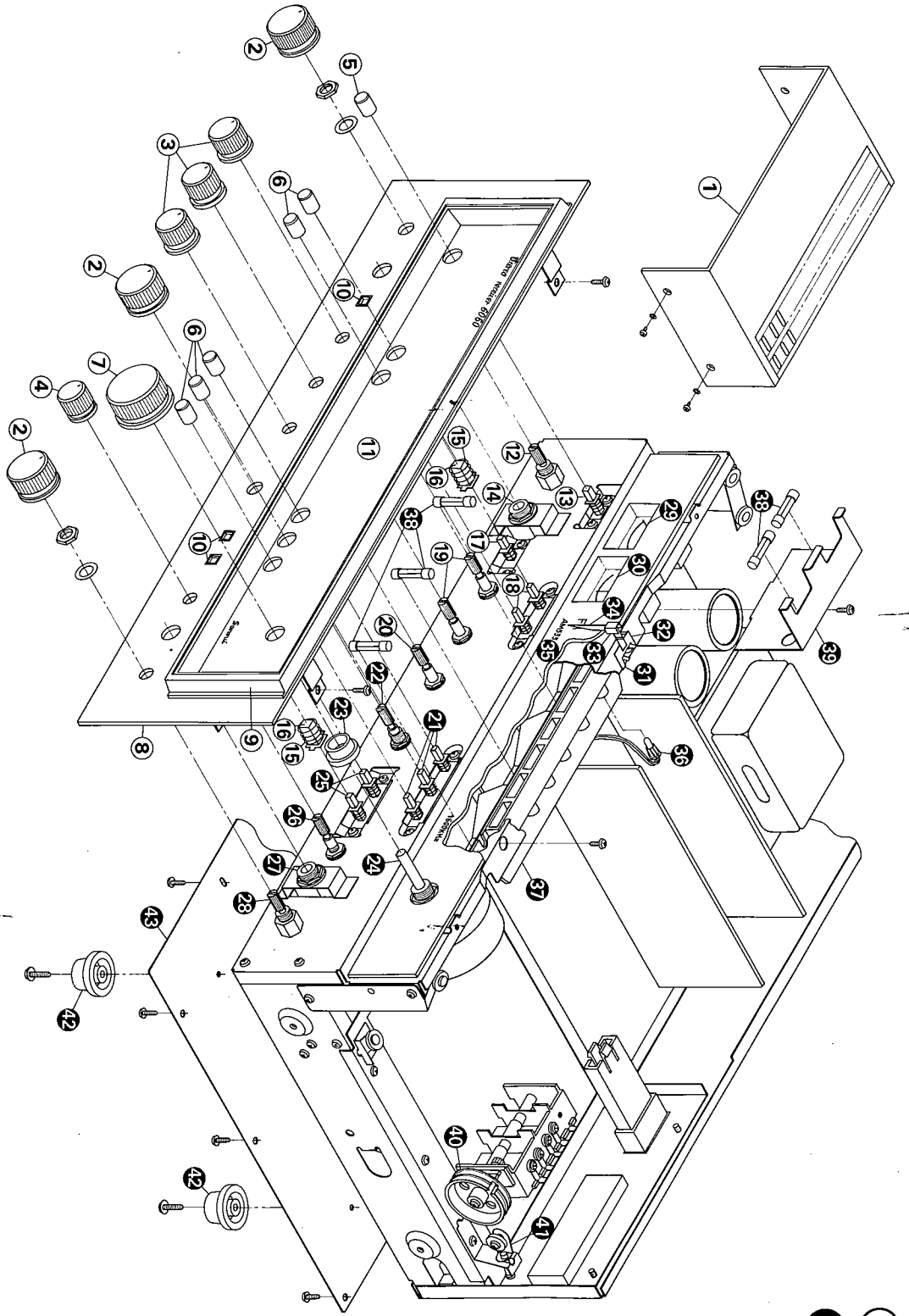
Parts List (Top Side & Bottom Side)

Parts No.	Stock No.	Description
C701~703	0657473	4700pF 50V C.C.
C704	0605337	0.033μF 250V M.C.
C705	0659802	0.0047μF 150V C.C.
R701, 702	0240104	100kΩ ¼W C.R.
R703, 704	0240334	330kΩ
R705, 706	0163221	220Ω 3 W Ce.R.
R707	0103122	1.2kΩ ½W C.R.
R708	0240122	1.2kΩ ¼W C.R.
L702	4200830	Bar Antenna
CO701, 702	2450060	AC Outlet

Parts No.	Stock No.	Description	
J703	2430041	DIN Jack	
F701		AC Fuse	
	0432260	3A 250V (220/240V)	MODEL 6060
	0432290	5A 250V (100/120V)	
	0432240	2A 250V (220/240V)	MODEL 5050
	0432280	4A 125V (100/120V)	
	2200320	4P Terminal	
	2210310	Antenna Terminal	
	2230150	Ground Terminal	
	2290160	4P Output Terminal	
	2300060	Fuse Holder	

Parts No.	Stock No.	Description
	2310030	P Type Fuse Holder
	2410091	6P Voltage Selector Plug
	2410830	10P Voltage Selector Socket
	3800010	Power Cord
	3910490	Strain Relief
	5266442	Bar Antenna Holder
	5287280	Bar Antenna Holder Case
PT01	4002460	Power Transformer (MODEL 6060)
	4002470	Power Transformer (MODER 5050)

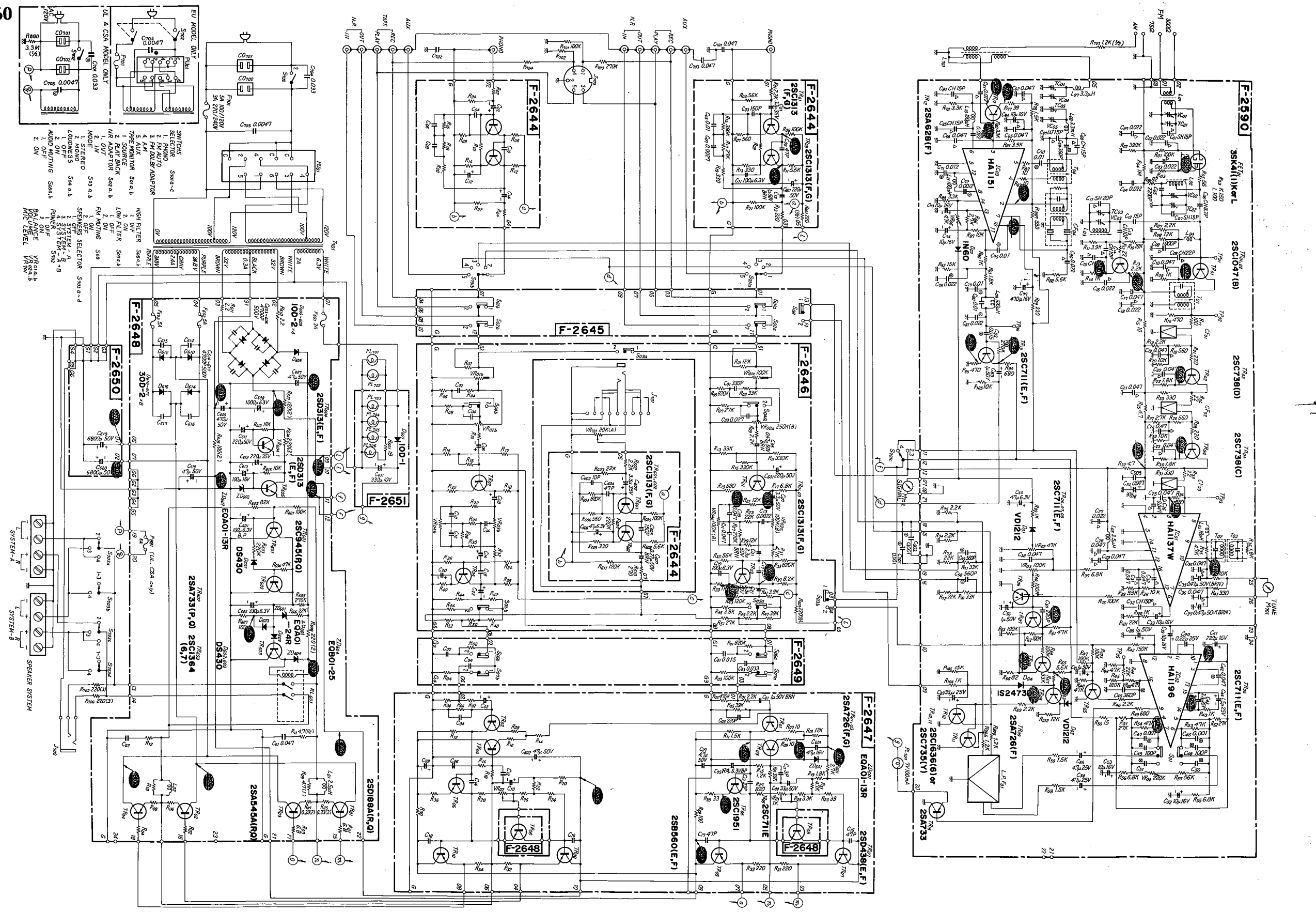
6-3. Exploded View


Sansui
Sansui
Sansui

7. SCHEMATIC DIAGRAM

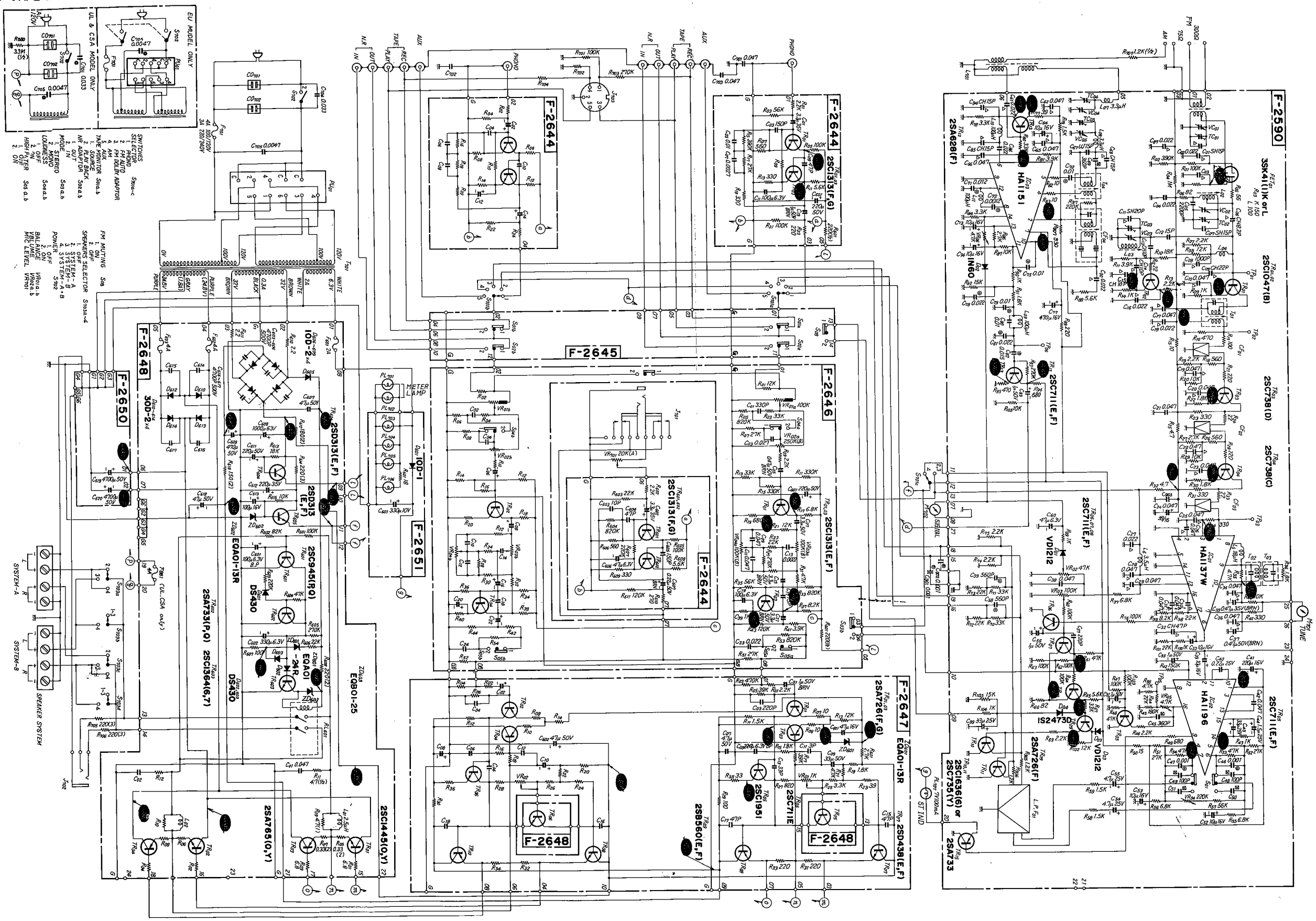
7-1. MODEL 6060

* La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suite d'améliorations éventuelles.
* Anderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.
* Design and specification subject to change without notice for improvements.

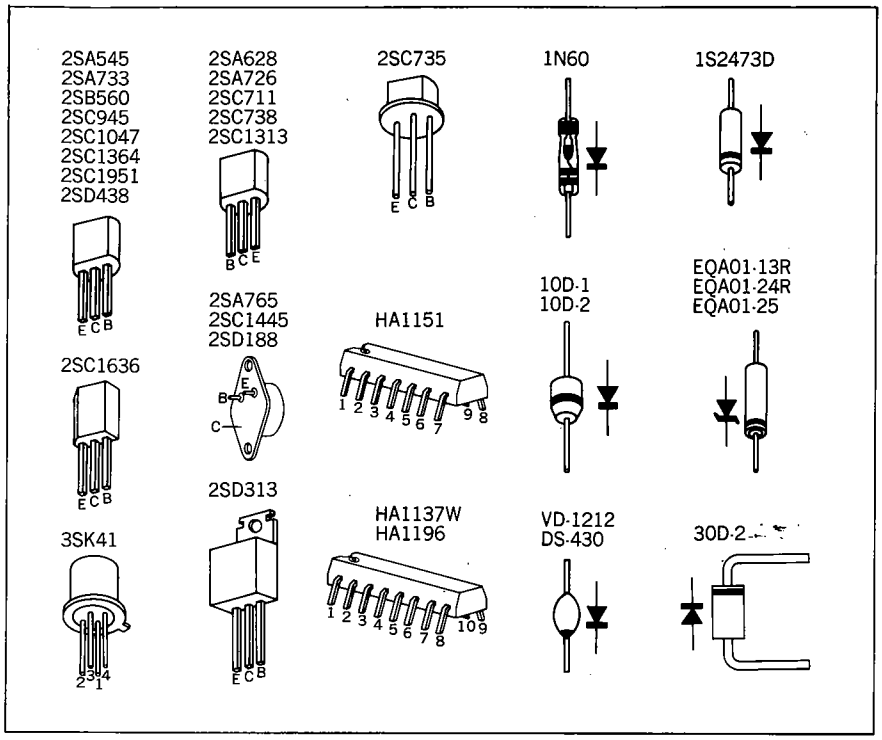


2. MODEL 5050

* La présentation et les spécifications sont susceptibles d'éter modifiées sans préavis par suite d'améliorations éventuelles.
* Anderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.
* Design and specification subject to change without notice for improvements.

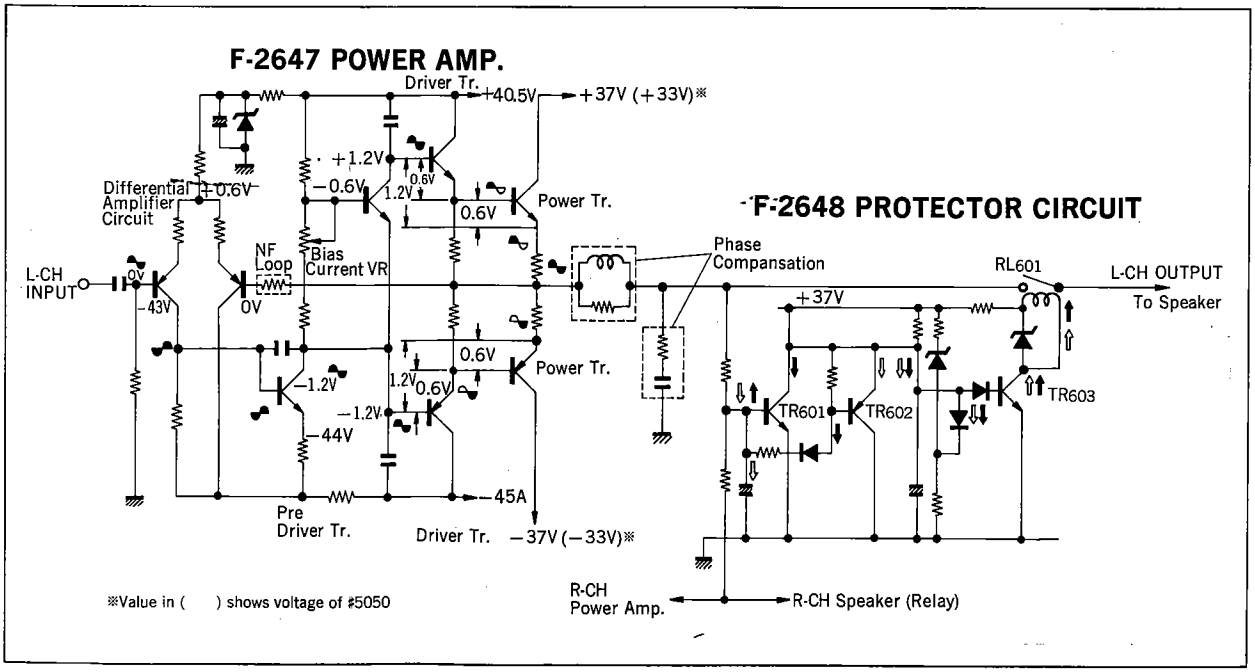


7-3. Semiconductor



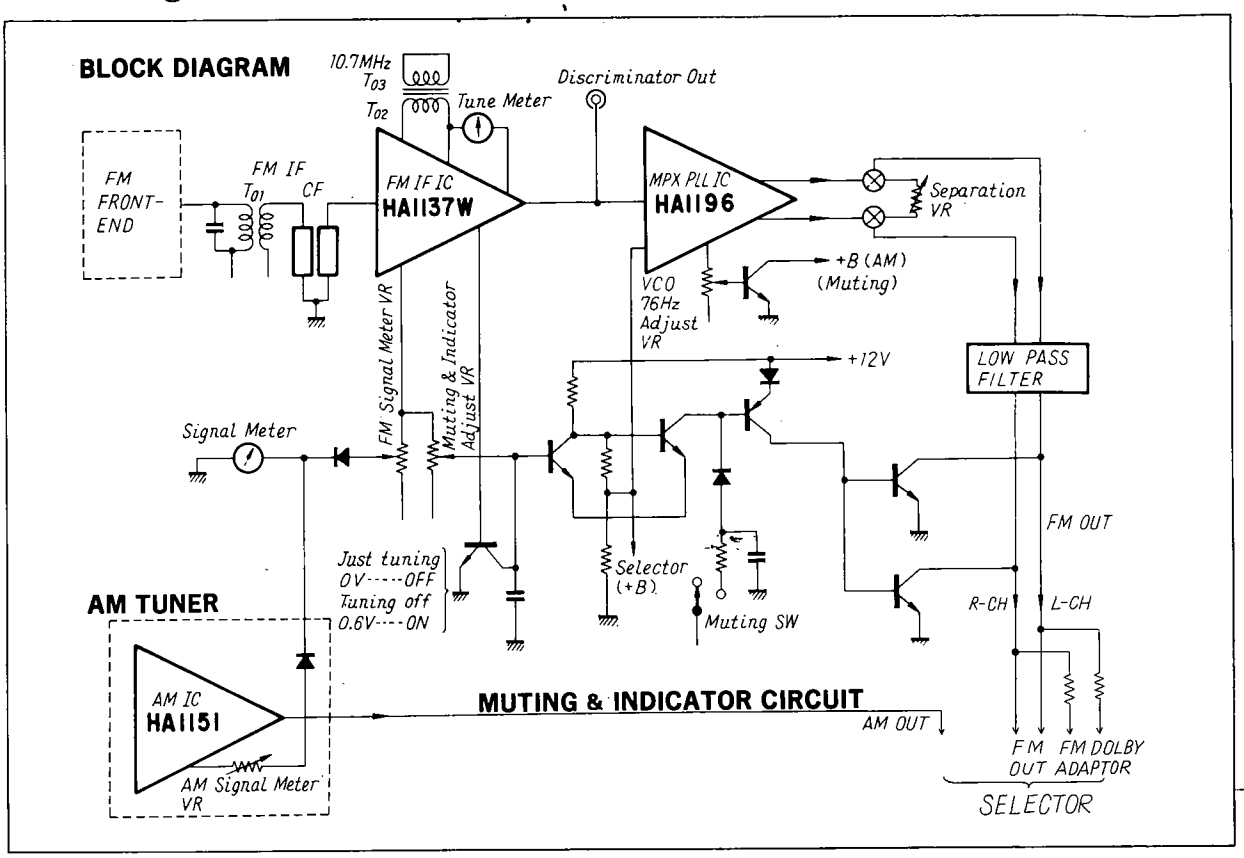
8. OPERATION BLOCK DIAGRAM

8-1. Block Diagram of Power AMP. & Protector Circuit

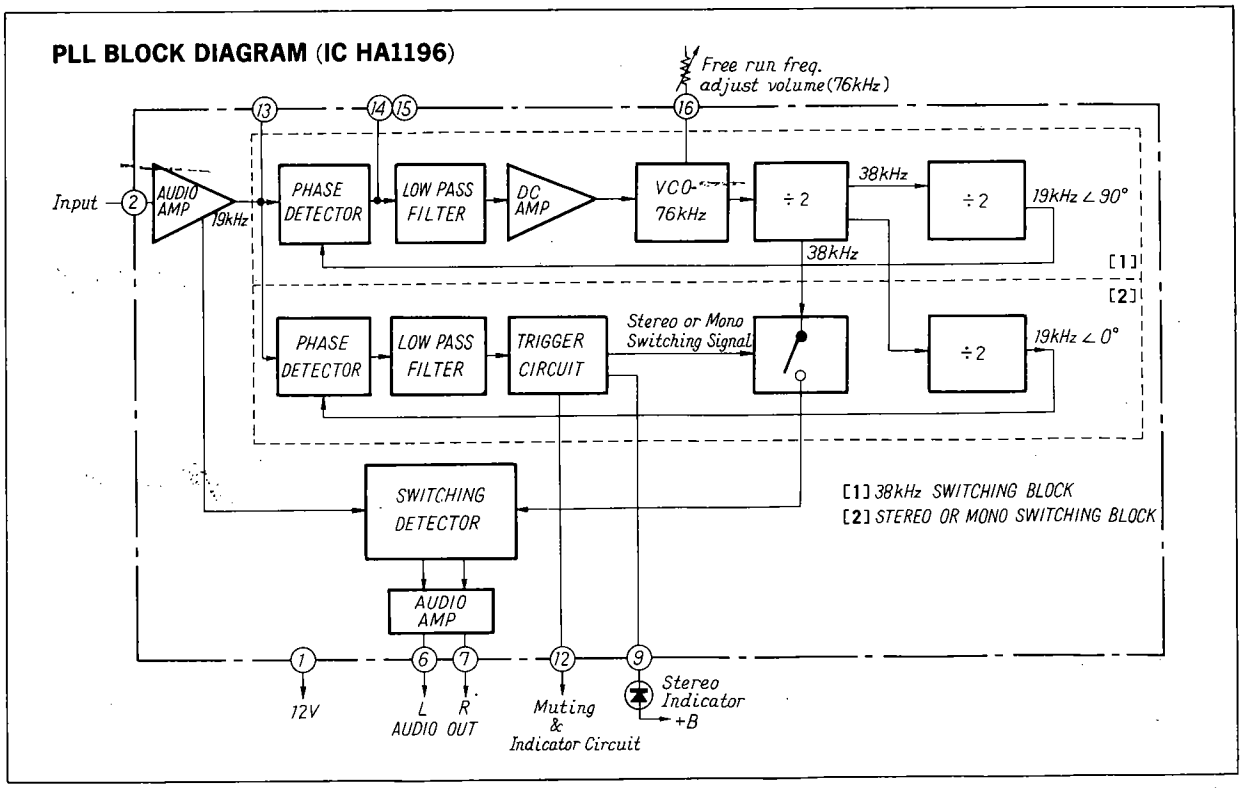


※ This Protection (Relay) Circuit serves to protect speakers when DC voltage appears at output of power amplifier stage, resulting in relay being released.
When the DC voltage exceeds 2.5V, the arrows ⇩⇧ show the variation of voltage drop or increase.
When the DC voltage drops below −2.5V, the arrows ⇩⇧ show the variation of voltage drop or increase as well.

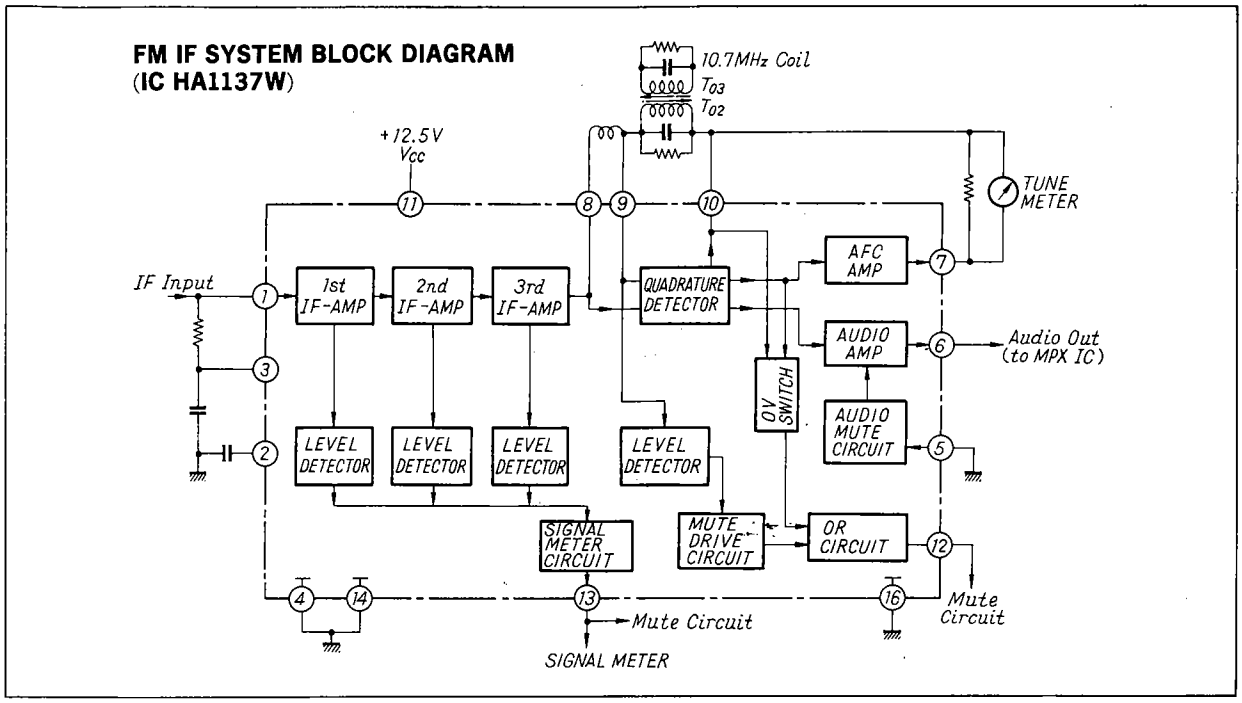
8-2. Block Diagram of Tuner Section



8-3. PLL Block Diagram (IC HA1196)



8-4. FM IF System Block Diagram (IC HA1137W)



※Functions (IC HA1137W)

This IC has operating functions of various circuits as listed below.

1) IF AMP.
2) Quadrature detection.
3) Low-Noise audio Preamp.
4) Delayed AGC detector and driver for Front-end.
5) Signal meter circuit.
6) Center meter circuit.
7) Muting (operation to input signal strength).
8) Muting (operation at detuning).
9) Multipass circuit.

※Main features (IC HA1137W)

1. This IC includes all functions required in FM IF stage.
2. As indicated above, this IC has functions of Muting circuit which operates below a certain input signal level. And also the IC includes new muting circuit, namely it has 0 volt switch which operates the muting circuit when the difference (absolute value) of detector output voltage between Tuning-ON and Detuning exceeds a certain voltage, utilizing S-curve characteristics of FM detector. By this advantage, it is possible to eliminate or avoid "Pop noise" caused by variation of the DC voltage at tuning-OFF.
3. The IC makes it possible to produce high-quality tuner having better selectivity and sensitivity by connecting 6-element filters between Front-end and the IC, as it has higher gain and better suppression ratio in amplitude modulation.
4. Linear swing of signal meter is obtained.

※Main features of PLL (IC HA1196)

In the multiplex demodulation circuit, because of sub-carrier wave (38kHz) being required for demodulation, the pilot signal (19kHz) sent from FM stereo broadcasting station is being made while doubling.

It is necessary for this sub-carrier wave that its phase confirms to that of pilot signal correctly, and if there is any phase difference between them, FM stereo separation becomes poor.

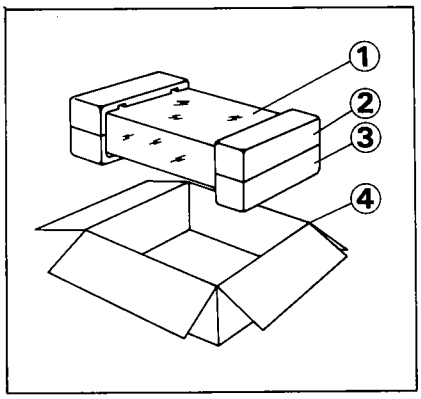
In the conventional products, LC resonance circuit has been used so far for the circuit of this section, on the other hand, in model 7070, IC in PLL is used, which prevents FM stereo separation from becoming poor due to deviation in resonance frequency or phase to temparature change and, in result, ensures stereo separation of more than 50dB at 1kHz.

Advantages

1) Selectivity is superior.
2) Phase characteristics is good.
3) It is virtually not affected by temperature.
4) No secular change occurs.

9. PACKING LIST

Parts No.	Stock No.	Description
1	9116690	Vinyl Cover
2	9028000	Stylofoam Packing
3	9009220	Carton Case (MODEL 6060)
	9009230	Carton Case (MODEL 5050)
4	5996080	Curl Stopper



10. ACCESSORY PARTS LIST

Stock No.	Description
9209850	Operating Instructions (MODEL 6060)
9209860	Operating Instructions (MODEL 5050)
9237390	Schematic Diagram (MODEL 6060)
9237400	Schematic Diagram (MODEL 5050)

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